

ABSTRACT OF THE DISCLOSURE

This invention relates to an optical assembly (10) with a laterally graded reflective multilayer whose reflecting surface reflects incident X-rays under low incidence angles producing a two-dimensional optical effect, characterized by the fact that said reflecting surface is comprised of a single surface, said reflecting surface being conformed along two curvatures corresponding to two different directions.

This invention also relates to a manufacturing method of such an optical assembly, characterized in that the method includes the coating of a substrate already having a curvature, and the curvature of this substrate along a second different direction.

The invention relates finally to a device for generating and conditioning X-rays for applications for angle-dispersive X-ray reflectometry including an optical assembly such as mentioned above connected to a source of X-rays in such a way that the X-rays emitted by the source are conditioned along two dimensions so as to adapt the beam emitted by the source to the sample, with the X-rays having different angles of incidence on the sample which is considered.

FIGURE 1